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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,230	11/15/2000	Sung-kyu Choi	Q61098	8676

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EXAMINER	
DIEP, NHON THANH	

ART UNIT	PAPER NUMBER
2613	10

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/712,230	CHOI, SUNG-KYU	
	Examiner	Art Unit	
	Nhon T Diep	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura et al (EP 0 753 968 A2), cited by the applicant.

Matsumura et al discloses a method of processing transmission data to inhibit error propagation in a digital image data communication system, the method comprising: (a) inputting an image frame from an external source (fig. 2, input to 1a); (b) checking for feedback error information including the location of an erroneous block on a first compressed image frame detected during decoding by a decoder, the feedback error information received via a communication network (fig. 3, el. 206, col. 7, ln. 1 – col. 8, ln. 13); (c) if it is determined in step (b) that there is feedback error information, intracoding an erroneous block, the location of which is included in the feedback error information, and its search range, **the search range being defined by blocks referenced** to encode the erroneous block using an intercoding method (the search range of the erroneous block on the transmission side implies interframe coding or intercoding and this limitation is met by col. 5, ln. 37-42) which teaches "as notification of an error, from the reception side, the transmission side employs the search range of a motion vector for coding the moving picture to estimate **the extent** of a portion

(search range) that may be affected by the error" in combination with col. 7, ln. 12-17, which teaches a portion that may be affected by distortion due to an error is estimated, and the portion is forcibly coded in the intraframe coding mode), among the image frame input in step (a), thereby constituting a second compressed image frame (fig. 4, el. 211-212 and col. 7, ln. 12-17, col. 8, ln. 49 – col. 9, ln. 6; search range = a portion that maybe affected by the distortion); and (d) transmitting the compressed image frame constituted in step (c), via a communication network (col. 10, ln. 27-30) as specified in claims 1 and 7 and (e) receiving a second compressed image frame in which an error detected block and a search range of the error detected block have been encoded by intracoding in response to the feedback error information sent in step (c), from the encoder via the communication network; (f) decoding the second compressed image frame received in step (e) referring to the error detected block and the search range of the error detected block, to constitute a second image frame; and (g) outputting the second image frame restored in step (f) (col. 10, ln. 14-33) as specified in claim 7; wherein the error block location included in the feedback error information in step (b) is set in units of 16 (pixel) x 16 (pixel) macro blocks (Col. 9, ln. 25-31; macroblock is typically 16 X 16 pixels) as specified in claims 2, 6 and 8; wherein the search range in step (c) includes 16 pixels or 32 pixels in four directions on the basis of the erroneous block (col. 9, ln. 32-40) as specified in claims 3 and 6; wherein the feedback error information in step (b) is associated with the image frame immediately preceding a current image frame (col. 12, ln. 9-26) as specified in claim 4; a method of processing transmission data to inhibit error propagation in a digital image data communication

system, the method comprising: (a) inputting an image frame from an external source (fig. 2, input to 1a); (b) when the image frame input in step (a) is the first image frame in a specific sequence, encoding the entire image frame using an intracoding method, to constitute a compressed image frame (col. 7, ln. 1-8< first frame of scene change = first frame of specific sequence); (c) when the image frame input in step (a) is not the first image frame in a specific sequence, checking feedback error information including the location of an erroneous block on a compressed image frame detected during decoding by a decoder, the feedback error information received via a communication network; (d) if it is determined in step (c) that there is feedback error information, intracoding an erroneous block, the location of which is included in the feedback error information, and its search range, which is referred to to encode the erroneous block using an intercoding method, among the image frame input in Step (a), while the remaining area of the input image frame is encoded by intercoding, thereby constituting a compressed image frame, and if it is determined in step (c) that no feedback error information is received, intracoding block(s) selected by a predetermined method from among the blocks of the image frame input in step (a), and intercoding the remaining blocks, thereby constituting a compressed image frame; and (e) transmitting the compressed image frame constituted in step (b) or (d), via a communication network (fig. 3, el. 206, col. 7, ln. 1 – col. 8, ln. 13); fig. 4, el. 211-212 and col. 7, ln. 12-17, col. 8, ln. 49 – col. 9, ln. 6; search range = a portion that maybe affected by the distortion; col. 10, ln. 27-30) as specified in claim 5.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al.

As applied to claims 1, 5 and 7 above, it is noted that Matsumura et al does not particularly disclose a computer-readable recording medium for recording a computer program which is executed in a computer for processing transmission data to inhibit error propagation in a digital image data communication system as recited in claims 9-11. Official Notice was taken with regard to the using of computer softwares stored onto a computer readable medium to perform encoding and decoding tasks which is well known in the encoding and decoding art and therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Matsumura et al by using computer software for performing encoding and decoding tasks. Doing so would help to reduce the cost of hardware in performing the same tasks.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Matsumura et al (US 5,847,763) discloses a moving picture transmission.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T Diep whose telephone number is 703-305-4648. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on 703 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ND
28 May 2004

NHON DIEP
PRIMARY EXAMINER